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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/632,013	07/31/2003	Jayanta Basak	JP920030064US1	9336
T. Rao Coca IBM Corporation Almaden Research Center 650 Harry Road San Jose, CA 95120				
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EXAMINER				
SHEIKH, ASFAND M				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/632,013

Applicant(s)

BASAK ET AL.

Examiner

Asfand M. Sheikh

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-893)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 7/31/2003

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35

U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "same group of users" and "different groups of users" in claim 1 is a relative term which renders the claim indefinite. The term "same group of users" and "different groups of users" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The examiner is confused on what constitutes a group of users? The examiner will interpret "same group of users" and "different groups of users" to be any number of user's that catalog information can be displayed to.

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 1 rejected under 35 U.S.C. 103(a) as being unpatentable over Abrahams (US 6,985,897 B1) in view of Linden et al. (US 2002/0019763 A1).

Claim 1

Abrahams discloses a method for automatically designing a catalog for a plurality of items using a computer system (see at least, abstract), the method comprising the steps of: estimating a relationship between placement of an item in a catalog and corresponding user responses (see at least, col. 3, lines 65-67 and col. 5, lines 1-9: the examiner notes "estimating a relationship" to be recommending a product to a consumer based on the system becoming familiar with the customer), the user responses being obtained from a transaction history (see at least, col. 3, lines 65-67 and col. 4, lines 51-67 and col. 5,

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lines 1-9: the examiner notes historical purchase data); determining a up-sell or cross-sell for each item using the estimated relationships (see at least, col. 4, lines 51-67).

Abrahams fails to disclose determining an optimized position for each item using the estimated relationships; and forming a catalog with the items being placed at determined optimized positions; deploying a plurality of initial catalogs with different item placements; and obtaining user responses for the initial catalogs, wherein the plurality of initial catalogs refer to any of different catalogs for different groups of users over a same period of time, different catalogs for a same group of users over different periods of time, and a combination of both, wherein the step of estimating a relationship between placement of the items in a catalog and corresponding user responses comprises the steps of: computing item differentials from the user responses; and computing search costs from the user responses, wherein the step of computing item differentials comprises the steps of: computing an effect of the nature of an item on said user responses; and computing an effect of the nature of an item on said user responses for other items in the catalog, wherein the step of computing search costs comprises the steps of: computing an effect of placing an item at a particular position in the catalog on said user responses; and

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computing an effect of relative positions of items on said user responses, wherein the step of determining an optimized position comprises the steps of: modeling a merchant specified objective as an optimization function in terms of item placement, item differentials, and search costs; and evaluating the optimization function to identify an optimal placement of each item in the catalog.

However, Linden discloses determining an optimized position for each item using the estimated relationships and forming a catalog with the items being placed at determined optimized positions (see at least, [0093]: the examiner notes the sorting in order of highest-to-lowest and [0096]: the examiner notes list of the top M items of the recommendations list are returned); deploying a plurality of initial catalogs with different item placements (see at least, [0093]: the examiner notes the sorting in order of highest-to-lowest and [0096]: the examiner notes list of the top M items of the recommendations list are returned and the list is further incorporated into web pages that are returned to the user); and obtaining user responses for the initial catalogs, wherein the plurality of initial catalogs refer to any of different catalogs for different groups of users over a same period of time, different catalogs for a same group of users over different periods of

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time, and a combination of both (see at least, [0014]-[0015] and [0019] the examiner notes a catalog can be a web page that can list recommended items to a user), wherein the step of estimating a relationship between placement of the items in a catalog and corresponding user responses (see at least, [0093]: the examiner notes the sorting in order of highest-to-lowest and [0096]: the examiner notes list of the top M items of the recommendations list are returned) comprises the steps of: computing item differentials from the user responses (see at least, [0055]: the examiner notes the use of current and/or recent carts for the differential); and computing search costs from the user responses (see at least, [0093]: the examiner notes the sorting in order of highest-to-lowest and [0096]: the examiner notes list of the top M items of the recommendations list are returned), wherein the step of computing item differentials (see at least, [0055]: the examiner notes the use of current and/or recent carts for the differential comprises the steps of: computing an effect of the nature of an item on said user responses (see at least, [0055]: the examiner notes the recommendations are based on the contents of the shopping cart implicitly or explicitly designated by the user); and computing an effect of the nature of an item on said user responses for other items in the catalog (see at least, [0055])

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and [0063]: the examiner notes pruning the personal shipping cart listing of items that are dormant), wherein the step of computing search costs comprises the steps of: computing an effect of placing an item at a particular position in the catalog on said user responses (see at least, [0093]: the examiner notes the sorting in order of highest-to-lowest and [0096]: the examiner notes list of the top M items of the recommendations list are returned); and computing an effect of relative positions of items on said user responses (see at least, [0061]: the examiner notes a history of items recently viewed by the user (e.g. which would include the M items on the recommendation list) to generate recommendations and [0093]: the examiner notes the sorting in order of highest-to-lowest and [0096]: the examiner notes list of the top M items of the recommendations list are returned), wherein the step of determining an optimized position (see at least, [0093]: the examiner notes the sorting in order of highest-to-lowest and [0096]: the examiner notes list of the top M items of the recommendations list are returned) comprises the steps of: modeling a merchant specified objective as an optimization function in terms of item placement, item differentials, and search costs (see at least, [0019]: the examiner notes tailored to the shopping interests of the customer (e.g. increase in

spending based) and [0093]: the examiner notes the sorting in order of highest-to-lowest and [0096]: the examiner notes list of the top M items of the recommendations list are returned); and evaluating the optimization function to identify an optimal placement of each item in the catalog (see at least, [0019]: the examiner notes tailored to the shopping interests of the customer (e.g. increase in spending based) and [0093]: the examiner notes the sorting in order of highest-to-lowest and [0096]: the examiner notes list of the top M items of the recommendations list are returned).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Abraham's method for automatically designing a catalog for a plurality of items to include determining an optimized position for each item using the estimated relationships; and forming a catalog with the items being placed at determined optimized positions; deploying a plurality of initial catalogs with different item placements; and obtaining user responses for the initial catalogs, wherein the plurality of initial catalogs refer to any of different catalogs for different groups of users over a same period of time, different catalogs for a same group of users over different periods of time, and a combination of both, wherein the step of estimating a relationship between

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placement of the items in a catalog and corresponding user responses comprises the steps of: computing item differentials from the user responses; and computing search costs from the user responses, wherein the step of computing item differentials comprises the steps of: computing an effect of the nature of an item on said user responses; and computing an effect of the nature of an item on said user responses for other items in the catalog, wherein the step of computing search costs comprises the steps of: computing an effect of placing an item at a particular position in the catalog on said user responses; and computing an effect of relative positions of items on said user responses, wherein the step of determining an optimized position comprises the steps of: modeling a merchant specified objective as an optimization function in terms of item placement, item differentials, and search costs; and evaluating the optimization function to identify an optimal placement of each item in the catalog as taught by Linden et al. One of ordinary skill in the art would have been motivated to combine the teachings in order to automatically identify items that are related to one another based on the activities of a community of users (see at least, Linden et al, [0012]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Asfand M. Sheikh whose telephone number is (571)272-1466. The examiner can normally be reached on M-F 8a-4:30p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ryan M. Zeender can be reached on (571) 272-6790. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Asfand M Sheikh/
Examiner, Art Unit 3627

June 2, 2008

/F. Ryan Zeender/
Supervisory Patent Examiner, Art Unit 3627